

Title (en)

Sintered high-toughness alumina-based composite body and production process thereof

Title (de)

Gesinterter Verbundwerkstoff auf Aluminiumoxidbasis von hoher Zähigkeit sowie Verfahren zu seiner Herstellung

Title (fr)

Corps fritté composite à base d'alumine, à haute tenacité, et son procédé de production

Publication

EP 0598414 B1 19990407 (EN)

Application

EP 93118676 A 19931119

Priority

JP 31011492 A 19921119

Abstract (en)

[origin: EP0598414A1] A sintered high-toughness alumina-based composite body comprises a plate- or rod-like, corundum or alumina-based compound structure and another structure having a fine granular corundum structure and containing inevitable impurities. A sintered high-toughness alumina-based composite can be produced by mixing a crystal-growth-promoting additive with a first portion of alumina powder to prepare a mix A, mixing a crystal-growth-inhibiting additive with a second portion of alumina powder to prepare a mix B, granulating at least one of the mix A and the mix B into granules, mixing the mix A and the mix B into a mix C, forming the mix C into a green body, and then firing the green body, whereby crystals of the corundum or alumina-based compound in the mix A are allowed to grow.

IPC 1-7

C04B 35/10

IPC 8 full level

C04B 35/10 (2006.01); **C04B 35/119** (2006.01)

CPC (source: EP US)

C04B 35/119 (2013.01 - EP US)

Cited by

WO2011011469A1; WO2011011470A1; US9272954B2

Designated contracting state (EPC)

DE FR GB SE

DOCDB simple family (publication)

EP 0598414 A1 19940525; EP 0598414 B1 19990407; DE 69324329 D1 19990512; DE 69324329 T2 19991014; JP 2945221 B2 19990906; JP H06157133 A 19940603; US 5432133 A 19950711; US 5599756 A 19970204

DOCDB simple family (application)

EP 93118676 A 19931119; DE 69324329 T 19931119; JP 31011492 A 19921119; US 15398993 A 19931118; US 41847895 A 19950407